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3712

Practitioner's Docket N . 48641 CPA (71923)  
PATENT



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: D.F. Lyman  
Application No.: 09/417,428  
Filed: October 13, 1999  
For: ENTERTAINMENT AND STRESS RELIEF DISK  
Group No.: 3712 ✓  
Examiner: U. Cegielnik

Mail Stop: Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

TRANSMITTAL OF APPEAL BRIEF (PATENT APPLICATION--37 C.F.R. SECTION 1.192)

1. Transmitted herewith, in triplicate, is the APPEAL BRIEF in this application, with respect to the Notice of Appeal filed on December 1, 2003.

NOTE: "Appellant must, within two months from the date of the notice of appeal under section 1.191 or within the time allowed for reply to the action from which the appeal was taken, if such time is later, file a brief in triplicate....." 37 C.F.R. Section 1.192(a) (emphasis added)

2. STATUS OF APPLICANT

This application is on behalf of

CERTIFICATE OF MAILING/TRANSMISSION (37 C.F.R. SECTION 1.8(a))

I hereby certify that, on the date shown below, this correspondence is being:

MAILING

[ x ] deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to Mail Stop: Appeal Brief - Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

FACSIMILE

[ ] transmitted by facsimile to the Patent and Trademark Office (703) \_\_\_\_-\_\_\_\_.

  
Signature

Date: February 4, 2004

Helen Murray Tarbi  
(type or print name of person certifying)

☐ other than a small entity.  
☒ a small entity.

A statement:

☐ is attached.  
☒ was already filed.

### 3. FEE FOR FILING APPEAL BRIEF

Pursuant to 37 C.F.R. Section 1.17(c), the fee for filing the Appeal Brief is:

☒ small entity \$165.00

☐ other than a small entity \$330.00

**Appeal Brief fee due \$ 165.00**

### 4. EXTENSION OF TERM

*NOTE: The time periods set forth in 37 C.F.R. 1.192(a) are subject to the provision of Section 1.136 for patent applications. 37 C.F.R. 1.191(d). See also Notice of November 5, 1985 (1060 O.G. 27).*

*NOTE: As the two-month period set in Section 1.192(a) for filing an appeal brief is not subject to the six-month maximum period specified in 35 U.S.C. 133, the period for filing an appeal brief may be extended up to seven months. 62 Fed. Reg. 53,131, at 53,156; 1203 O.G. 63 at 84. Oct. 10, 1997.*

The proceedings herein are for a patent application and the provisions of 37 C.F.R. Section 1.136 apply.

*(complete (a) or (b), as applicable)*

(a) ☐ Applicant petitions for an extension of time under 37 C.F.R. Section 1.136 (fees: 37 C.F.R. Section 1.17(a)(1)-(5)) for the total number of months checked below:

<input type="checkbox"/>	Extension (months)small entity	Fee for other than	Fee for small entity
<input type="checkbox"/>	one month	\$110.00	\$ 55.00
<input type="checkbox"/>	two months	\$420.00	\$210.00
<input type="checkbox"/>	three months	\$950.00	\$475.00
<input type="checkbox"/>	four months	\$1,480.00	\$740.00
<input type="checkbox"/>	five months	\$2,010.00	\$1,005.00

Fee \$ \_\_\_\_\_

If an additional extension of time is required, please consider this a petition therefor.

*(check and complete the next item, if applicable)*

☐ An extension for \_\_\_\_ month(s) has already been secured, and the fee paid therefor of \$\_\_\_\_\_ is deducted from the total fee due for the total months of extension now requested.

Extension fee due with this request \$ \_\_\_\_\_

or

(b) ☒ Applicant believes that no extension of term is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

**5. TOTAL FEE DUE**

The total fee due is:

Appeal brief fee \$ 165.00

Extension fee (if any) \$ \_\_\_\_\_

**TOTAL FEE DUE \$ 165.00**

**6. FEE PAYMENT**

☒ Attached is a check in the sum of \$ 165.00.

☐ Charge Account No. \_\_\_\_\_ the sum of \$ \_\_\_\_\_.

**7. FEE DEFICIENCY**

*NOTE: If there is a fee deficiency and there is no authorization to charge an account additional fees are necessary to cover the additional time consumed in making up the original deficiency. If the maximum six-month period has expired before the deficiency is noted and corrected, the application is held abandoned. In those instances where authorization to charge is included, processing delays are encountered in resuming the papers to the PTO Finance Branch in order to apply these charges prior to action on the cases. Authorization to change the deposit account for any fee deficiency should be checked. See the Notice of April 7, 1986, 1065 O.G 31-33.*

☒ If any additional extension and/or fee is required, this is a request therefor and to charge Account No. 04-1105.

AND/OR

☒ If any additional fee for claims is required, charge Account No. 04-1105.

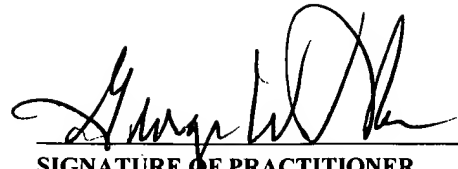
February 4, 2004  
**DATE**

Reg. No. 26,964

Tel. No. (617) 439-4444

Customer No. 21874

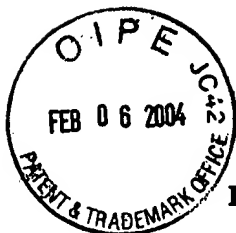
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**SIGNATURE OF PRACTITIONER**

George W. Neuner  
(type or print name of practitioner)  
Attorney for Applicant

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P.O. Address

Boston, MA 02205



Attorney Docket No. 48641 (71923)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

APPLICANT: D.F. Lyman  
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Date: February 4, 2004

By: Helen Murray Tarbi  
Helen Murray Tarbi

\*\*\*\*\*

**BRIEF ON APPEAL**

This is an appeal from the final rejection dated August 1, 2003 wherein claims 1-17 are under examination and rejected. Three (3) copies of this Brief are enclosed.

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BRIEF ON APPEAL  
Lyman  
Ser. No. 09/417,428  
Page 2 of 13

**BRIEF ON APPEAL FEE**

A check for \$165.00, the required fee for filing a Brief on Appeal, is enclosed herewith.

**REAL PARTY IN INTEREST**

The real party in interest is the Applicant, Daniel F. Lyman.

**RELATED APPEALS AND INTERFERENCES**

There are no related appeals or interferences known to Appellant, Appellant's legal representative or the assignee, which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending Appeal.

**STATUS OF THE CLAIMS**

Claims 1- 17 stand finally rejected. Claims 1- 17 are on appeal.

**STATUS OF THE AMENDMENTS**

Claims 1 was amended in a communication mailed February 5, 2002, which has been entered. No further amendments have been made.

### **SUMMARY OF THE INVENTION**

The present invention relates to a passive diversion device for entertainment and stress relief. In particular, the device has two surfaces separated by a small distance and is configured to provide two equilibrium positions, one having a convex shape and the other having a concave shape when viewed from the same direction. The largest average dimension of the surfaces is substantially greater than the thickness of the device. By applying finger pressure to a surfaces of the device, the surfaces invert from one equilibrium position to the other. [Page 1, lines 3-10]

The present invention provides a simple, inexpensive device that can be used for passive entertainment and stress relief through manual manipulation of the device. The device may be manufactured with varying degrees of stiffness, sizes, texture, color and scent so that individuals may chose a device based on personal preferences. The device may additionally be adapted to change color and/or produce sound upon manipulation. [Page 2, lines 11-16]

In accord with the invention, an amusement and stress relief device comprises a flexible material formed into a disk-like shape having two opposite surfaces, a center portion and a peripheral portion, wherein the center portion has a convex/concave shape relative to the peripheral portion, and wherein the device is stable in tow positions, a first stable position where a first surface is concave and a second surface is convex and a second stable position where the first surface is convex and the second surface is concave. Preferably, the center portion protrudes out of a plane containing the peripheral portion. The disk-like device preferably has a circular peripheral edge, but can be formed with any shape peripheral edge. [Page 2, lines 18-27]

The device of the present invention includes a peripheral lip portion **1** and a center portion **2** surrounded by the lip portion **1**. The device has an upper surface **3** and a lower surface **4**, one surface being concave and the other surface being convex.

The concavity and convexity of the surfaces **3**, **4** are interchangeable. In other words, the device has two stable equilibrium positions, one being the concave upper surface **3** with convex lower surface **4** and the other being the convex upper surface **3** with concave lower surface **4**. Manual manipulation of the device inverts the surface from one equilibrium position to the other. The concave surface **3** or **4** preferably has a single peak **5** in the middle of the center portion **2**. The device, however, may have more than one peak **5**, provided that the two equilibrium positions as described are present in the device. [Page 3, lines 18-29; Figs. 1-4]

The amusement and stress relief device is formed of a flexible, resilient polymeric material having a center portion with a concave/convex shape, wherein the device has **two stable equilibrium positions** wherein a first equilibrium position comprises a first surface having a concave shape and a second surface having a convex shape and a second equilibrium position is the reverse or inverse of the first equilibrium position and comprises the second surface having a concave shape and the first surface having a convex shape. In other words, the second stable equilibrium position is the reverse or inverse of the first stable equilibrium position. The device of the present invention **requires** manual manipulation to be moved from one stable equilibrium position to the other, no matter which stable equilibrium position it is in. Further, the two equilibrium positions have substantially the same shape or appearance.

The nature of the present invention can be readily seen by examining the samples of the device that were previously submitted with the AMENDMENT AFTER FINAL REJECTION mailed January 25, 2001.



**ISSUE(S)**

1. Claims 1 is rejected under 35 U.S.C. §102(b) over French Publication No. 2640886 (FR '886).
2. Claims 2-17 are rejected under 35 U.S.C. §103(a) over FR '886.

**GROUPING OF THE CLAIMS**

All claims stand or fall together for the purpose of the present appeal.

**ARGUMENT**

*Summary Of The Argument*

The present invention is directed to and claims an amusement and stress relief device formed of a flexible, resilient polymeric material having a center portion with a concave/convex shape, wherein the device has **two stable equilibrium positions** wherein a first equilibrium position comprises a first surface having a concave shape and a second surface having a convex shape and a second equilibrium position is the reverse or inverse of the first equilibrium position and comprises the second surface having a concave shape and the first surface having a convex shape, whereby manual manipulation of the device inverts the first and second surfaces between the two stable equilibrium positions, as set forth in claim 1. In other words, the second stable equilibrium position is the reverse or inverse of the first stable equilibrium position. The device of the present invention **requires** manual manipulation to be moved from one stable equilibrium position to the other, no matter which stable equilibrium

position it is in. Further, the two equilibrium positions have substantially the same shape or appearance.

French Publication '886 describes a jumping toy ("jouet sauteur"). In use, it is inverted and placed on a surface. Immediately upon inversion its elastic material starts to return to its original shape. As the return to its original shape continues, the material suddenly snaps back to the original shape causing the toy to jump.

The present invention is directed to and claims an amusement and stress relief device formed of a flexible, resilient polymeric material having a center portion with a concave/convex shape, wherein the device has **two stable equilibrium positions** wherein a first equilibrium position comprises a first surface having a concave shape and a second surface having a convex shape and a second equilibrium position is the reverse or inverse of the first equilibrium position and comprises the second surface having a concave shape and the first surface having a convex shape, whereby manual manipulation of the device inverts the first and second surfaces between the two stable equilibrium positions, as set forth in claim 1. In other words, the second stable equilibrium position is the reverse or inverse of the first stable equilibrium position. The device of the present invention **requires** manual manipulation to be moved from one stable equilibrium position to the other, no matter which stable equilibrium position it is in. Further, the two equilibrium positions have substantially the same shape or appearance.

None of the cited references teach or suggest the presently claimed device. All of the cited references ***fail*** to teach or suggest a device having **two stable equilibrium positions** wherein a first equilibrium position comprises a first surface having a concave shape and a second surface having a convex shape and a second equilibrium position is the reverse or inverse of the first equilibrium position and comprises the second surface having a concave shape and the first surface having a convex shape, whereby manual manipulation of the device is required to invert the first and second surfaces between the two stable equilibrium positions, as set forth in claim 1. Further, none of the references teach a device wherein **two equilibrium positions have substantially the same shape or appearance**.

The rejections of the examiner should be reversed.

*The Cited Art*

French Publication '886

FR '886 describes a jumping toy ("jouet sauteur") that has a substantially spherical shape made of rubber or another elastic material. In use, it can be inverted and placed on a surface. Immediately upon inversion its elastic material starts to return to its original shape. As the return to its original shape continues, the material suddenly snaps back to the original shape causing the toy to jump.

*Detailed Discussion Of The Rejections*

1. Claims 1 is rejected under 35 U.S.C. §102(b) over French Publication No. 2640886 (FR '886).
2. Claims 2-17 are rejected under 35 U.S.C. §103(a) over FR '886.

Because the rejection of all claims is based on a single reference, the cited reference and the invention will be discussed together below with respect to both novelty and obviousness.

Contrary to the rubber or elastic jumping toy of FR '886, the present stress relief device is formed of a formed of a flexible, resilient polymeric material. The present device will not jump if inverted. Indeed, instead of jumping, it has **two stable equilibrium positions** whereby manual manipulation of the device is required to invert the surfaces between the two stable equilibrium positions.

The jumping toy of FR '886 does not have **two stable equilibrium positions**. Manual manipulation is required to change the shape of the jumping toy from its sole equilibrium position. After that, due to the rubber or elasticity, the jumping toy automatically returns to that original sole equilibrium position.

In the device of the present invention, the second equilibrium position provides a shape that is substantially the same as the shape of the device in the first equilibrium position. As discussed above, FR '886 **fails** to teach or suggest **two**

**stable equilibrium positions.** Manifestly, there is no teaching or suggestion inn FR '886 for a second equilibrium position that provides a shape that is substantially the same as the shape of the device in the first equilibrium position. Compare the present drawings with the figures of FR' 886.

This application has been examined in detail. Numerous references have been cited and refuted. This latest citation of FR '886 takes us full circle to the first office action where jumping toy was cited. No device similar to the present device has been found during the long examination.

In stretching to read FR '886 on the claim language, it was stated that "FR '886 discloses . . . a flexible, resilient polymeric material consisting of a center portion with a planar peripheral portion surrounding the center portion . . ." [Page 2, last full paragraph - 1-27-03]. In a drawing accompanying the office action, the thickness of the jumping toy was labeled as the "planar peripheral portion." Clearly, FR '886 fails to teach or suggest a device consisting of a flexible, resilient polymeric material consisting of a center portion with **a planar peripheral portion surrounding the center portion.**

#### Conclusion

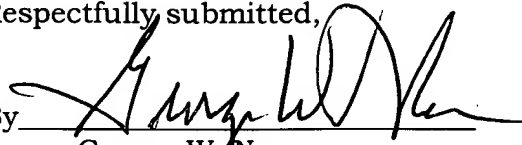
Fr' 886 ***fails*** to teach or suggest the presently claimed invention to one of ordinary skill in the art.

BRIEF ON APPEAL  
Lyman  
Ser. No. 09/417,428  
Page 10 of 13

A favorable decision reversing the rejections of the examiner is respectfully  
requested.

Date: 4 Feb '04

Respectfully submitted,

By   
George W. Neuner  
Reg. No. 26,964

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Boston, MA 02205  
Tel: (617) 439-4444

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## **APPENDIX**

### **Claims on Appeal**

1 (previously amended). An amusement and stress relief device formed of a flexible, resilient polymeric material consisting essentially of:

a center portion with a substantially planar peripheral portion surrounding the center portion;

the center portion having a concave first lower surface and a convex first upper surface,

the device having two stable equilibrium positions whereby manual manipulation of the device inverts the surfaces between the two stable equilibrium positions,

wherein a first stable equilibrium position comprises the first lower surface having a concave shape and the first upper surface having a convex shape and, after inversion, a second stable equilibrium position comprises the first upper surface now having a concave shape and the first lower surface now having a convex shape,

wherein the second equilibrium position provides a shape that is substantially the same as the shape of the device in the first equilibrium position and the device will hold the second equilibrium position until manual manipulation returns the device to the first equilibrium position.

2 (original). The device of Claim 1 wherein the device is disk-shaped and has a diameter  $d$  in the range of about 0.75 inch to about 6 inches.

3 (original). The device of Claim 2, wherein the peripheral portion comprises a lip having a width  $w$  wherein the ratio of  $w$  to  $d$  is not greater than about  $1/4$ .

4 (original). The device of Claim 3, wherein the ratio of  $w$  to  $d$  is in the range of about  $1/30$  to about  $1/5$ .

5 (original). The device of Claim 2, wherein the device has a substantially uniform cross-sectional thickness  $t$  over at least the center portion, and the ratio of  $t$  to  $d$  is not greater than about  $1/10$ .

6 (original). The device of Claim 5, wherein the ratio of  $t$  to  $d$  is in the range of about  $1/80$  to about  $1/20$ .

7 (original). The device of Claim 5, wherein the thickness  $t$  of the center portion is tapered, such that a thickness  $t_i$  near the peripheral portion is greater than a thickness  $t_c$  near the center.

8 (original). The device of Claim 2, wherein a domed peak is formed in the center portion the peak having a height  $h_p$  relative to a plane containing the peripheral portion, and the ratio of  $h_p$  to  $d$  is not greater than about  $1/3$ .

9 (original). The device of Claim 1, wherein the polymeric material is an ethylene-vinyl acetate polymer.

10 (original). The device of Claim 1, wherein at least one of the first and second surfaces are textured.

11 (original). The device of Claim 10, wherein the texture is provided by ridges formed on the surface.



12 (original). The device of Claim 10, wherein the texture is provided by dimples formed on the surface.

13 (original). The device of Claim 1, wherein at least one surface comprises an illustration.

14 (original). The device of Claim 1, wherein the material comprises a scent that is emitted from the device upon manual manipulation.

15 (original). The device of Claim 1, wherein the material comprises a composition that changes the color of the device upon changes in temperature or changes in other environmental conditions.

16 (original). The device of Claim 1, wherein the polymeric material is selected from the group consisting of fluoroplastics, polyamides, polybutylenes, thermoplastic polyesters, polyethylene and ethylene copolymers, silicones, thermoplastic elastomers, vinyl polymers and copolymers, and blends thereof.

17 (original). The device of Claim 1, wherein the material is a colored resin.



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The amusement and stress relief device is formed of a flexible, resilient polymeric material having a center portion with a concave/convex shape, wherein the device has **two stable equilibrium positions** wherein a first equilibrium position comprises a first surface having a concave shape and a second surface having a convex shape and a second equilibrium position is the reverse or inverse of the first equilibrium position and comprises the second surface having a concave shape and the first surface having a convex shape. In other words, the second stable equilibrium position is the reverse or inverse of the first stable equilibrium position. The device of the present invention **requires** manual manipulation to be moved from one stable equilibrium position to the other, no matter which stable equilibrium position it is in. Further, the two equilibrium positions have substantially the same shape or appearance.

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None of the cited references teach or suggest the presently claimed device. All of the cited references **fail** to teach or suggest a device having **two stable equilibrium positions** wherein a first equilibrium position comprises a first surface having a concave shape and a second surface having a convex shape and a second equilibrium position is the reverse or inverse of the first equilibrium position and comprises the second surface having a concave shape and the first surface having a convex shape, whereby manual manipulation of the device is required to invert the first and second surfaces between the two stable equilibrium positions, as set forth in claim 1. Further, none of the references teach a device wherein **two equilibrium positions have substantially the same shape or appearance**.

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**stable equilibrium positions.** Manifestly, there is no teaching or suggestion inn FR '886 for a second equilibrium position that provides a shape that is substantially the same as the shape of the device in the first equilibrium position. Compare the present drawings with the figures of FR' 886.

This application has been examined in detail. Numerous references have been cited and refuted. This latest citation of FR '886 takes us full circle to the first office action where jumping toy was cited. No device similar to the present device has been found during the long examination.

In stretching to read FR '886 on the claim language, it was stated that "FR '886 discloses . . . a flexible, resilient polymeric material consisting of a center portion with a planar peripheral portion surrounding the center portion . . ." [Page 2, last full paragraph - 1-27-03]. In a drawing accompanying the office action, the thickness of the jumping toy was labeled as the "planar peripheral portion." Clearly, FR '886 fails to teach or suggest a device consisting of a flexible, resilient polymeric material consisting of a center portion with **a planar peripheral portion surrounding the center portion.**

#### Conclusion

Fr' 886 **fails** to teach or suggest the presently claimed invention to one of ordinary skill in the art.

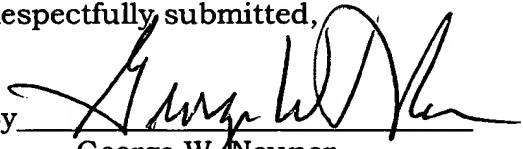
BRIEF ON APPEAL  
Lyman  
Ser. No. 09/417,428  
Page 10 of 13

A favorable decision reversing the rejections of the examiner is respectfully  
requested.

Date: 4 Feb '04

Respectfully submitted,

By

  
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## **APPENDIX**

### **Claims on Appeal**

1 (previously amended). An amusement and stress relief device formed of a flexible, resilient polymeric material consisting essentially of:

a center portion with a substantially planar peripheral portion surrounding the center portion;

the center portion having a concave first lower surface and a convex first upper surface,

the device having two stable equilibrium positions whereby manual manipulation of the device inverts the surfaces between the two stable equilibrium positions,

wherein a first stable equilibrium position comprises the first lower surface having a concave shape and the first upper surface having a convex shape and, after inversion, a second stable equilibrium position comprises the first upper surface now having a concave shape and the first lower surface now having a convex shape,

wherein the second equilibrium position provides a shape that is substantially the same as the shape of the device in the first equilibrium position and the device will hold the second equilibrium position until manual manipulation returns the device to the first equilibrium position.

2 (original). The device of Claim 1 wherein the device is disk-shaped and has a diameter  $d$  in the range of about 0.75 inch to about 6 inches.

3 (original). The device of Claim 2, wherein the peripheral portion comprises a lip having a width  $w$  wherein the ratio of  $w$  to  $d$  is not greater than about  $1/4$ .

4 (original). The device of Claim 3, wherein the ratio of  $w$  to  $d$  is in the range of about  $1/30$  to about  $1/5$ .

5 (original). The device of Claim 2, wherein the device has a substantially uniform cross-sectional thickness  $t$  over at least the center portion, and the ratio of  $t$  to  $d$  is not greater than about  $1/10$ .

6 (original). The device of Claim 5, wherein the ratio of  $t$  to  $d$  is in the range of about  $1/80$  to about  $1/20$ .

7 (original). The device of Claim 5, wherein the thickness  $t$  of the center portion is tapered, such that a thickness  $t_i$  near the peripheral portion is greater than a thickness  $t_c$  near the center.

8 (original). The device of Claim 2, wherein a domed peak is formed in the center portion the peak having a height  $h_p$  relative to a plane containing the peripheral portion, and the ratio of  $h_p$  to  $d$  is not greater than about  $1/3$ .

9 (original). The device of Claim 1, wherein the polymeric material is an ethylene-vinyl acetate polymer.

10 (original). The device of Claim 1, wherein at least one of the first and second surfaces are textured.

11 (original). The device of Claim 10, wherein the texture is provided by ridges formed on the surface.

12 (original). The device of Claim 10, wherein the texture is provided by dimples formed on the surface.

13 (original). The device of Claim 1, wherein at least one surface comprises an illustration.

14 (original). The device of Claim 1, wherein the material comprises a scent that is emitted from the device upon manual manipulation.

15 (original). The device of Claim 1, wherein the material comprises a composition that changes the color of the device upon changes in temperature or changes in other environmental conditions.

16 (original). The device of Claim 1, wherein the polymeric material is selected from the group consisting of fluoroplastics, polyamides, polybutylenes, thermoplastic polyesters, polyethylene and ethylene copolymers, silicones, thermoplastic elastomers, vinyl polymers and copolymers, and blends thereof.

17 (original). The device of Claim 1, wherein the material is a colored resin.